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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/640,674

08/18/2000

Frank Hundscheidt

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7590

10/03/2005

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER

FERRIS, DERRICK W

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/640,674

Applicant(s)

HUNDSCHIEDT ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/11/2005 has been entered.

Response to Arguments

2. This Office action is in response to applicant's paper filed 06/18/2004. **Claims 1-20 and 29** as amended are still in consideration for this application.

3. Examiner does **not withdraw** the anticipated rejection to *Ericsson*. The following comments fully address applicant's arguments with respect to the rejection.

First, the examiner thanks applicant for attempting to clarify the raised issue by further amending the claimed subject matter. However, at issue with the amended claims is the further definition of service differentiation as it relates to service parameters. Unfortunately, it appears the definition of "service parameter" with respect to "service differentiation" for which applicant attempts to argue is not further recited in the claim. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that there is a service differentiation between *bearers* of different networks as argued in applicant's remarks on page 13, first full paragraph) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

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USPQ2d 1057 (Fed. Cir. 1993). In other words, service differentiation between bearers of different networks is not equivalent to service differentiation achieved across a network boundary since such a service differentiation could involve layers between the various protocols. With respect to the *Ericsson* reference, the internetworking node as claimed is the GGSN 116 shown e.g., in figure 9 (i.e., the mapping is performed at the gateway and not at a terminal). In particular, note the mapper function 128 illustrated in figure 9. The service parameters are further described e.g., on page 24 of the reference where IP QoS parameters are packet-oriented protocol parameters and PS QoS and CS QoS parameters are packet-oriented protocol parameters and circuit-oriented protocol parameters respectfully. As such, applicant attempts to argue that these parameters are not service parameters with respect to service differentiation. The examiner respectfully disagrees. In particular, these parameters are related to service differentiation where service differentiation is achieved across a network boundary since the parameters relate to either circuit or packet switching respectively. In addition, with respect to bearer information which is not claimed by applicant, the examiner notes the second example provided on page 24 with respect to "service class" for IP QoS parameters and bearer service type for CS QoS parameters. As such, the examiner notes the above limitation is met given a reasonable but broad interpretation of applicant's specification and also in view of a bearer service. However, the examiner will note that MLPP and eMLPP parameters are not taught by the *Ericsson* reference. Such a preferred mapping is taught by applicant at e.g., page 25, last paragraph and in the tables provided on pages 26-29 of applicant's specification.

Thus in concluding, the examiner recommends that applicant further clarify a service parameter in light of service differentiation. To assist the applicant in the above clarification, the

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examiner has provided a new 112-second paragraph rejection for the claims as necessitated by amendment. However, even though the same rejection is applied, since applicant paid for a continuation, the examiner has made the following rejection non-final.

4. Examiner does **not withdraw** the obviousness rejection to *Ericsson* in view of *Blake* and *Ericsson* in view of *Mikkonen*. See similar reasoning above for the anticipated rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-20 and 29** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, all the independent claims fail to clarify the terms “service parameters” in view of “service differentiation”. Specifically, it is not clear what these terms mean in view of applicant’s specification and specifically in view of “service parameters” for a circuit-oriented protocol. The dependent claims are further rejected for depending on an independent rejected claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. **Claims 1-7, 13, 14, and 17-20 and 29** are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99/16266 to *Ericsson*.

As to **claim 1**, *Ericsson* discloses an internetworking method/apparatus shown e.g., in figure 9 where the GGSN 116 contains a Mapper 128 (emphasis claim 40 of *Ericsson* in reference to a gateway node and mapping function). Figure 9 also shows the GSN network (i.e., circuit-switched or packet-switched bearer channels) between a mobile station 102 and the GGSN 116 (i.e., a circuit switched network) as well as an Internet connection between the GGSN 116 and the ISP 130 (i.e., a packet switched network). With respect to receiving circuit-switched service parameters and packet-switched parameters as well as mapping these parameters see e.g., page 24 and page 27, lines 4-14. With respect to forwarding see e.g., page 5, lines 14-25 where the GGSN maintains routing information. With respect to checking the allowability of the service parameters and if the service parameters are not allowable, negotiating allowable service parameters see e.g., figure 8. In particular, if a service parameter is not allowable (i.e., above, below, within T, or not present) then either a new bear is created or the existing parameter is modified (see e.g., blocks 84 and 85) where the QoS parameters are then further mapped thus teaching negotiation.

As to **claim 2**, see e.g., page 24.

As to **claim 3**, see e.g., page 24.

As to **claim 4**, see e.g., page 24 where the bearer service type is included (i.e., bearer capability information).

As to **claim 5**, see e.g., page 24 where the bearer service type is included (i.e., bearer capability information).

As to **claim 6**, see e.g., page 19, lines 10-21; page 21, lines 19-27; and page 24.

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As to **claim 7**, see e.g., page 19, lines 10-21; page 21, lines 19-27; and page 24.

As to **claim 13**, see similar rejection for claim 1. In addition, with respect to RSVP see e.g., page 18, last paragraph.

As to **claim 14**, see similar rejection for claim 13.

As to **claim 17**, see similar rejection for claim 1 where the mapping table is shown e.g., on page 24.

As to **claim 18**, see similar rejection for claim 1.

As to **claim 19**, see similar rejection for claim 17.

As to **claim 20**, see similar rejection for claim 1. With respect to negotiating of parameters, see e.g., page 6, lines 7-13.

As to **claim 29**, see similar rejection for claim 1.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 8-12, 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/16266 to *Ericsson* in view of “An Architecture for Differentiated Services” to *Blake et al.* (“*Blake*”).

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

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- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*
- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 8**, for step (a) *Ericsson* discloses using DiffServ, see e.g., page 21, line 19 – page 22, line 6 and page 32, first paragraph.

For step (b) *Ericsson* is silent or deficient to the further limitation using the packet-oriented protocol bit settings in a service differentiated field (DS) of the packet.

Blake teaches the further recited limitation above at e.g., page 3 first full paragraph in view of page 5 in reference to a “DS field”.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ericsson* by clarifying that DiffServ uses the DS field as is well known in the art such that the bit settings in the service differentiated field are used.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include the further limitation said differentiation field (DS) is a Traffic Class Octet according to IPv6 or a Type of service

field according to IPv4. In particular, the motivation for modifying the reference or to combine the reference teachings would be to clarify how DiffServ works as is well known in the art. In particular, *Blake* cures the above-cited deficiency by providing a motivation found at e.g., page 1 since *Blake* discloses the architecture for DiffServ. Second, there would be a reasonable expectation of success since *Blake* discloses the architecture for DiffServ. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 9**, see similar rejection for claim 8.

As to **claim 10**, see similar rejection for claim 8.

As to **claim 11**, see similar rejection for claim 9.

As to **claim 12**, see similar rejection for claim 4.

As to **claims 15-16**, for step (a) *Ericsson* discloses ATM and Frame Relay.

For step (b) *Ericsson* is silent or deficient to the further limitation that ATM and Frame Relay are label-switching. In particular, *Ericsson* discloses layer 2 tunneling to the ISP and also teaches that the IP tunnel could be ATM or FR, see e.g., page 28, lines 9-15.

Blake teaches the further recited limitation above at e.g., page 10 last paragraph.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ericsson* by clarifying that ATM and Frame Relay are label switching protocols.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

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First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include ATM or Frame Relay where ATM and FR are label-switching protocols. In particular, the motivation for modifying the reference or to combine the reference would be to use ATM or FR since both of these protocols offer better built-in security. In particular, *Blake* cures the above-cited deficiency at page 28, first full paragraph. Second, there would be a reasonable expectation of success since *Blake* discloses that ATM or FR is possible. Thus the references either in singular or in combination teach the above claim limitation(s).

11. **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/16266 to *Ericsson* in view of U.S. Patent No. 6,587,457 B1 to *Mikkonen*.

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*
- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 15**, for step (a) *Ericsson* see similar rejection to claim 1.

For step (b) *Ericsson* is silent or deficient to the further limitation protocol label switching (e.g., MPLS). However, *Ericsson* does disclose layer 2 tunneling to the ISP and also teaches that the IP tunnel could be ATM or FR, see e.g., page 28, lines 9-15.

Mikkonen teaches the further recited limitation above at e.g., figure 6.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ericsson* by showing that MPLS can be used as an IP tag for either an IP tunnel or for ATM.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation protocol label switching (e.g., MPLS). In particular, the motivation for modifying the reference or to combine the reference teachings would be to reduce the need for performing time consuming routing on the basis of the address data of the network layer. In particular, *Mikkonen* cures the above-cited deficiency by providing a motivation found at e.g., column 3, line 1-20. Second, there would be a reasonable expectation of success since *Mikkonen* shows that MPLS is implemented in a wireless network and at a mobile IP router in particular. Thus the references either in singular or in combination teach the above claim limitation(s).

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As to **claim 16**, see similar rejection for claim 15.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123.

The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

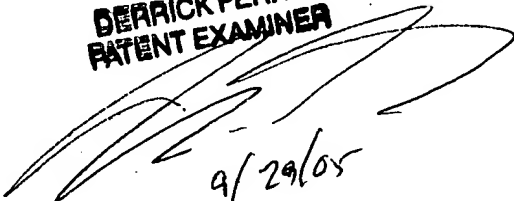
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Derrick W. Ferris
Examiner
Art Unit 2663


DWF

**DERRICK FERRIS
PATENT EXAMINER**


9/29/05